

# [While Drilling System and Method]

## Abstract

A while drilling system and method for determining annular pressure while drilling is provided. The system is positioned in a drilling tool suspended from a drilling rig via a drill string. The system includes at least one drill collar, a while drilling tool and at least one external sensor. The drill collar has a tubular sidewall defining a passage therein for the flow of drilling mud therethrough. The while drilling tool is supported in the passage of the at least one drill collar and selectively retrievable therefrom. The external sensor is positioned in the sidewall of the drill collar and isolated from the passage. The sensor is exposed to the well-bore for measurement thereof and adapted to wirelessly communicate with the while drilling tool. The system is preferably adapted for use in high temperature and pressure environments.